

THE **Big** IDEA

Integrating Chemistry

How are elements and compounds part of living things?

Lesson Review

1. What is an element? _____

2. What elements are needed for photosynthesis in a plant cell? _____

3. What are the products of cellular respiration? _____

4. What is the chemical formula for glucose? _____

Skill Challenge

Skills: *analyzing, inferring*

Complete the following.

1. What would happen if a cell did not receive glucose and oxygen? _____

2. What would happen if molecules could not pass through the cell membrane? _____

3. Why are ribosomes called protein factories? _____

4. Why are photosynthesis and cellular respiration sometimes referred to as opposite processes? _____

Seven years later, Crum opened his own restaurant, which **19** conveyed a basket of potato chips on every table. Within a few years he was catering to wealthy clients, including the Vanderbilts, Jay Gould, and Henry Hilton. By the time the restaurant closed in 1892, potato chips **20** have become a staple of Northern cooking. Though Crum never attempted to patent his invention, the snack was eventually mass-produced and **21** they sold it in bags. In the 1920s, the invention of the mechanical potato peeler paved the way for potato chips to shift from a specialty item to a top-selling snack food.

Today, potatoes are second in human consumption only to rice. And as **22** thin, salted, crispy chips, they are the top-selling snack food in the United States.

19

- A) NO CHANGE
- B) featured
- C) revealed
- D) elaborated

20

- A) NO CHANGE
- B) will become
- C) had become
- D) becoming

21

- A) NO CHANGE
- B) sold
- C) selling
- D) being sold

22

- A) NO CHANGE
- B) thin, salted, crispy chips –
- C) thin; salted, crispy, chips,
- D) thin, salted, crispy chips;

Crum's thick-cut potatoes were popular at Moon Lake Lodge, **15** and many prominent individuals consumed them each summer. Crum cut and fried a thinner batch, but they also met with disapproval. Exasperated, Crum decided to teach the guest a **16** lesson, but he produced potato slices that were too thin and crisp to skewer with a fork. He sliced a new batch of potatoes as thin as he possibly could. **17** Therefore, he fried them until they were hard and crunchy. To top them off, he added a generous heaping of salt.

Crum was prepared for the guest to be disappointed yet again, but instead he was ecstatic about the browned, paper-thin potatoes. The guest's excitement was contagious, and other diners quickly asked to try them.

18 A new snack was born.

15

Which choice most effectively sets up the information that follows?

- A) NO CHANGE
- B) but one evening an unsatisfied guest requested that Crum bring him thinner slices.
- C) and patrons often chose to eat there rather than at other local establishments.
- D) but other restaurants in the region served them as well.

16

- A) NO CHANGE
- B) lesson and producing
- C) lesson: he produced
- D) lesson; producing

17

- A) NO CHANGE
- B) Then,
- C) Consequently,
- D) However,

18

The writer is considering adding the following sentence.

Crum's potatoes were soon in such high demand that they were added to the menu as "Saratoga chips."

Should the writer make this addition?

- A) Yes, because it adds relevant detail illustrating the popularity of Crum's invention.
- B) Yes, because it supports the idea that Crum enjoyed defying convention.
- C) No, because it distracts from the paragraph's focus on the diners at Moon Lake Lodge.
- D) No, because it interrupts the logical development of the paragraph.

Questions 12-22 are based on the following passage.

Hot Potato

Every time a person crunches into a potato chip, **12** you are enjoying the delicious taste of one of the world's most famous snacks. It a treat that might not have existed without the contribution of inventor George Crum. Born to an African American father and a Native American mother in 1828, Crumb was raised in **13** upstate New York, he trained as a chef there as well.

In the summer of 1853, Crum was employed at Moon Lake Lodge an elegant hotel in the resort town of Saratoga Springs. Among the items on Moon Lake Lodge's restaurant menu were French-fried potatoes. Every day, Crum prepared them in the standard thick-cut style that had been popularized in France, **14** whose capital is Paris, and brought back to the United States by Thomas Jefferson after he finished serving as the American ambassador.

12

- A) NO CHANGE
- B) one is
- C) they are
- D) he or she is

13

- A) NO CHANGE
- B) upstate New York; training as a chef there as well.
- C) upstate New York, it was there that he trained as a chef also.
- D) upstate New York, where he also trained as a chef.

14

The writer is considering deleting the underlined portion (adjusting the punctuation accordingly). Should it be kept or deleted?

- A) Kept, because it specifies where thick-cut potatoes originated.
- B) Kept, because it describes a foreign influence on cooking in the United States.
- C) Deleted, because it blurs the paragraph's focus on the menu at Moon Lodge.
- D) Deleted, because Crum only worked in upstate New York.